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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/437,948	11/10/1999	NANNING J. ARFSTEN	275-3US	8672

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2005 MARKET STREET, SUITE 2200
PHILADELPHIA, PA 19103-7013

EXAMINER	
MCNEIL, JENNIFER C	

ART UNIT	PAPER NUMBER
1775	27

DATE MAILED: 12/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/437,948	ARFSTEN ET AL.	
	Examin r	Art Unit	
	Jennifer C McNeil	1775	

-- The MAILING DATE of this communication appears on the c ver sheet with the corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 October 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,11,12,19,20 and 22-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *12,19,20 and 22-24* is/are allowed.

6)☒ Claim(s) *1,2 and 11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by Nakamura et al (EP 0953550). Please refer to the previous office action for the text of the rejection.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Burns et al (US 5,254,392). Please refer to the previous office action for the text of the rejection.

Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Boire et al (US 6,068,914). Please refer to the previous office action for the text of the rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al (EP 953550) in view of Yan et al (US 5,948,481). Nakamura teaches a low-reflectance article on a glass substrate as discussed above but does not include additional substrates that may be used. Yan teaches an

optical anti-reflection coating comprising oxide layers on a substrate. Yan teaches that the substrate may be formed of glass, polycarbonate, polystyrene etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a substrate taught by Yan as a substrate for Nakamura as it is clearly taught by Yan that these substrates are interchangeable with glass and therefore are expected to function with anti-reflection layers with reasonable success.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al (US 5,254,392).) in view of Yan et al (US 5,948,481). Burns teaches an optical coating on a glass substrate as discussed above but does not include additional substrates that may be used. Yan teaches an optical coating comprising oxide layers on a substrate. Yan teaches that the substrate may be formed of glass, polycarbonate, polystyrene etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a substrate taught by Yan as a substrate for Burns as it is clearly taught by Yan that these substrates are interchangeable with glass and therefore are expected to function with optical layers with reasonable success.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boire et al (US 6,068,914 in view of Yan et al (US 5,948,481).). Boire teaches a glazing pane on a glass substrate as discussed above but does not include additional substrates that may be used. Yan teaches an optical coating comprising oxide layers on a substrate. Yan teaches that the substrate may be formed of glass, polycarbonate, polystyrene etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a substrate taught by Yan as a substrate for Boire as it is clearly taught by Yan that these substrates are interchangeable with glass and therefore are expected to function with optical layers with reasonable success.

Allowable Subject Matter

Claims 12, 19, 20, and 22-24 are allowed.

Response to Arguments

Applicant's arguments filed October 02, 2003 have been fully considered but they are not persuasive.

Regarding the rejection over Nakamura, applicant argues that the application does not qualify as prior art because the examiner has not assigned a proper priority date to the application. Applicant states that US 6,410,173 has a disclosure sufficient to provide priority. Applicant admits that the portions of the patent referred to discuss the use of niobium in combination with zirconium, but that the instant claim is open-ended. This argument is not convincing. While the instant claim may be an open-ended recitation, there are two ways to interpret the claim. The claim may be interpreted where the niobium oxide is the only material present, which is commensurate with the instant disclosure. Alternatively, the claim may be interpreted as containing materials in addition to the niobium oxide. There is absolutely no basis for the first interpretation in US 6,410,173 for which to grant priority. Regarding the second interpretation, only the addition of zirconium is supported by US 6,410,173. Therefore there is no support for niobium in combination with *any* additional material. The rejection over Nakamura is maintained.

Regarding the rejection over Burns, applicant argues that Burns is not teaching the optical anti-reflection coating, but a layer designed to cut down on iridescence. The instant claims are simply to a coated substrate with a thin film optical coating. The coating of Burns is considered an optical coating. Applicant argues that Burns does not teach formation using sol gel. Burns teaches that both the anti-iridescence and optically functional layers may be formed by sol-gel (col. 11, lines 10-15). Applicant argues that the structure of the layers is characterized by the manner in which it is made. Applicant argues that the low-temperature cured niobium oxide layer enable formation of a high index layer that can be used on plastic substrates. There is no evidence or substantive argument that the actual structure of the layer itself is different from that of the prior art. The arguments are geared toward the use of the layer and not to the layer itself.

Regarding the rejection over Boire, applicant states that the examiner misread the reference in that B coatings are intended for high temperature applications and not sol gel applicable high index coatings. Boire teaches that the high index layers and the low index layers may be used for either the "A" or the "B" coatings. Furthermore, it is clearly stated that a high index layer is considered niobium oxide and that the "A" type coating has both high and low index layers.

Regarding claim 11, the 103 rejections were necessitated by the amendment.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer C McNeil whose telephone number is 703-305-0553. The examiner can normally be reached on 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on 703-308-3822. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

JCM
December 19, 2003